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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,354	10/10/2003	Michael Chen	BPCUR0006MC (C-40)	1202
27939	7590	07/07/2009		
PHILIP H. BURRUS, IV 460 Grant Street Atlanta, GA 30312			EXAMINER THOMAS, JASON M	
			ART UNIT 2423	PAPER NUMBER
			MAIL DATE 07/07/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/685,354	Applicant(s) CHEN, MICHAEL	
	Examiner Jason Thomas	Art Unit 2423	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/19/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pp. 13-17, filed March 19, 2009, with respect to the rejections of claims 1-66 under 35 U.S.C. Section 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new grounds of rejection is made in view of Ludvig, U.S. Pat. No. 6,415,437 (hereinafter Ludvig) in view of Chan, U.S. Pub. No. 2003/0159143 A1 (hereinafter Chan).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludvig, in view of Chan.

Regarding claims 1, 19, 37, 55, 59 and 63: Ludvig discloses a method, apparatus and system for preparing at least a first image for integration with at least a second image, comprising: a receiver for receiving at least a first image (see [fig. 1, item 300] for a receiver to receive at least a first image); at least a first encoder for forming a first compressed image (see [fig. 2, items 204] for at least a first encoder for forming a first compressed image) restricted to a first

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region of a first image area by representing at least one segment of the first image within the first region with a reference to another segment of the first image within the first region, thereby preparing the first image for integration with the second image (see [fig. 5, items 510, 504, 506, 508], [fig. 6], [col. 6, ll. 15-54] for scaling down an image from it's original size to a smaller size and for locating it within a first, second, third, etc. region); and a combiner for combining the first compressed image with the second image to form an integrated image (see [fig. 2,4 item 202] for a video blender which combines a first image with a second image to produce an integrated image for display on a display screen; see also [abstract], [col. 6, ll. 55-64] for using MPEG encoders for encoding and compression) but Ludvig does not teach wherein an image is compressed to prepare it for integration with a second image.

Chan teaches the act of compressing images prior to manipulating and outputting the integrated data for displaying multiple video images (see [fig. 5 & 6], [33-36]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the process by encoding and manipulating the images prior to combining as taught by Chan in order to increase the frame transmission and increase the perceived quality (see [34]).

Regarding claim 2, 20 and 38: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system further comprising: a receiver for receiving at least a second image (see Ludvig [fig. 1, items 300 or 304] for a receiver capable of receiving more that one image), a second encoder

for forming a second compressed image, thereby preparing the second image for integration with the first image (see Ludvig [fig. 2, items 204] for at least a second encoder for forming a second compressed image; see also Chan [33-34] for encoding prior to image manipulation).

Regarding claim 3, 21 and 39: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second encoder forms the second compressed image restricted to a second region of a second image area by representing at least one segment of the second image within the second region with a reference to another segment of the second image within the second region (see Ludvig [figs. 2, 4-6] for at least a second encoder and compositor which enables a second image to be compressed using the MPEG standard and manipulated; see also Chan [figs. 4, 5 & 6], [33], [34] where the encoding and manipulation process takes place prior to combining, which reads on integration).

Regarding claim 4, 22 and 40: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image area and the second image area are the same, and the first region and the second region are different regions within the same image area (see Ludvig [figs. 5, 6]; see also Chan [fig. 6] for multiple image areas which are the same and the first and second regions are different such that video 1 is in one region and video 16 in a second region of the screen).

Regarding claim 5, 23 and 41: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image area and the second image area are different, and the first region and the second region are different regions within different image areas (see Ludvig [fig. 6] where the first and second image areas are different and where the first region and second region are within different image areas).

Regarding claim 6, 24 and 42: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image is logically or physically divided into segments (see Ludvig [abstract] where the received image can be a sequence of images also known as a video).

Regarding claim 7, 25 and 43: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second image is logically or physically divided into segments (see Ludvig [abstract] where the second received image can also be a sequence of images also known as a video).

Regarding claim 8, 26 and 44: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image includes at least one frame (see Ludvig [abstract] where the received image can be a sequence of images also known as a video, where a video has at least one frame which starts the image sequence).

Regarding claim 9, 27 and 45: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second

image includes at least one frame (see Ludvig [abstract] where the second received image can also be a sequence of images also known as a video, where a video has at least one frame which starts the image sequence).

Regarding claim 10, 28 and 46: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image area spans at least one frame, and the first encoder forms the first compressed image by representing at least one segment of the first image within the first region of the frame with a reference to another segment of the first image within the first region of the frame (see Ludvig [abstract] where the received image can be a sequence of images also known as a video, where a video has at least one frame which starts the image sequence; see also [col. 6, ll. 15-54] for processor which scales down an image from it's original size to a smaller size; see also [figs. 5 & 6] for locating it within a first, second, third, etc. region where the placement in a region is conducted for each frame of video displayed; see also Chan [fig. 4-6] and [34] for frame processing and encoding prior to manipulating).

Regarding claim 11, 29 and 47: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second image area spans at least one frame, and the second encoder forms the second compressed image by representing at least one segment of the second image within the second region of the frame with a reference to another segment of the second image within the second region of the frame (see Ludvig [abstract] where the received image can be a sequence of images also known as a video, where

a video has at least one frame which starts the image sequence; see also [col. 6, ll. 15-54] for processor which scales down an image from it's original size to a smaller size; see also [figs. 5 & 6] for locating it within a first, second, third, etc. region where the placement in a region is conducted for each frame of video displayed; see also Chan [fig. 4-6] and [34] for frame processing and encoding prior to manipulating).

Regarding claim 12, 30 and 48: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image area spans multiple frames, and the first encoder forms the first compressed image by representing at least one segment of the first image within the first region of one frame with a reference to a segment of the first image within the first region of a different frame (see Ludvig [abstract] where the received image can be a sequence of images also known as a video and for using MPEG video, where a video has at least one frame which starts the image sequence; see also [col. 6, ll. 15-54] for processor which scales down an image from it's original size to a smaller size; see also [figs. 5 & 6] for locating it within a first, second, third, etc. region where the placement in a region is conducted for each frame of video displayed; see also Chan [fig. 4-6] and [34] for frame processing and encoding prior to manipulating).

Regarding claim 13, 31 and 49: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second image area spans multiple frames, and the second encoder forms the second

compressed image by representing at least one segment of the second image within the second region of one frame with a reference to a segment of the second image within the second region of a different frame (see Ludvig [abstract] where the received image can be a sequence of images also known as a video and for using MPEG video, where a video has at least one frame which starts the image sequence; see also [col. 6, ll. 15-54] for processor which scales down an image from it's original size to a smaller size; see also [figs. 5 & 6] for locating it within a first, second, third, etc. region where the placement in a region is conducted for each frame of video displayed; see also Chan [fig. 4-6] and [34] for frame processing and encoding prior to manipulating).

Regarding claim 14, 32 and 50: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image is a motion video image, and the second image is a still image, a motion video image, or a combination of both (see Ludvig [figs. 5 & 6] where video source 1 occupies one region and video sources 2 and/or 3 occupies another region).

Regarding claim 15, 33 and 51: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image is a barker (see Ludvig [col. 3, ll. 12-18], [col. 4, ll. 34-42]).

Regarding claim 16, 34 and 52: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second image is a menu or programming guide (see Ludvig [figs. 5 & 6] where video

sources 1, in the first region is a video and another region which can be called a second region holds a programming guide image).

Regarding claim 17, 35 and 53: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the first image is prepared for integration with at least the second image for display to a content-on-demand subscriber (see Ludvig [col. 4, ll. 1-13] for a system designed to be capable of receiving and displaying on-demand video).

Regarding claim 18, 36 and 54: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system, wherein the first compressed image is combined with the second image to form an integrated image (see Chan [figs. 5 & 6], [33], [34] for compressing prior to manipulating; see also Ludvig for combining videos [figs. 2, 4, 5 & 6], [col. 6, ll. 15-54] for a video blender which integrates the images).

Regarding claim 56, 60 and 64: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system further comprising: at least a second encoder for receiving the second image and forming a second compressed image; wherein the combiner combines the first compressed image and the second compressed image (see Ludvig [fig. 2, items 204] for at least a second encoder for forming a second compressed image; see also for a compositor; see also Chan [33-34] for encoding prior to image manipulation; see

also [figs. 4 & 5] for an unit which encodes, manipulates, and combines prior to outputting).

Regarding claim 57, 61 and 65: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the second encoder forms the second compressed image, restricted to a second region of a second image area, by representing at least one segment of the second image within the second region with a reference to another segment of the second image within the second region (see Ludvig [col. 6, ll. 15-32] for using MPEG encoders for video frames which reference one another; see also [fig. 2, items 204] for at least a second encoder for forming a second compressed image; see also for a compositor; see also Chan [33-34] for encoding prior to image manipulation; see also [figs. 4 & 5] for an unit which encodes, manipulates, and combines prior to outputting).

Regarding claim 58, 62 and 66: The combined teachings of Ludvig, in view of Chan, teach the method, apparatus and system wherein the combiner selects first portions of the first compressed image within the first region, selects second portions of the second compressed image within the second region, and combines the selected first portions and second portions (see Ludvig [figs. 2 & 4-6]; see also Chan [34] where video portions (frames) can be processed individually as frames for processing; see also Ludvig [fig. 2] for a video compositor, which reads on a video blender, which is able to combine the frames

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that make up a video frame sequence; see also Chan [figs. 4-6], [34] for a video manipulator, which reads on a blender).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Thomas whose telephone number is (571) 270-5080. The examiner can normally be reached on Mon. - Thurs., 8:00 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Koenig can be reached on (571) 272-7296. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

J. Thomas

/Andrew Y Koenig/
Supervisory Patent Examiner, Art Unit 2423